

REMARKS/ARGUMENTS

The amendments set forth above and the following remarks are responsive to the points raised by the Office Action dated January 29, 2007. In view of the amendments set forth above and the following remarks, reconsideration is respectfully requested.

The Pending Claims

Claims 1 and 4-7 have been cancelled, and claims 8-24 have been added, so that claims 2-3 and 8-24 are pending.

Claims 2-3 have been amended, and claims 8-24 have been added, to describe the invention more clearly. No new matter has been added, and the basis for the amended claim language may be found within the original specification, claims, and drawings.

Priority

The Office Action noted that the reference to the priority provisional application in the Application Data Sheet (ADS) of June 18, 2002, incorrectly lists the application number as 60/114,972. The correct provisional application number is 60/117,972. A supplemental ADS setting forth the correct priority provisional application number is submitted herewith and replaces all previous Application Data Sheets.

Claim Rejections under 35 U.S.C. § 102

Claims 2 and 3 were rejected under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 5,256,294 to van Reis (hereinafter, "van Reis").

Claim 2 was rejected under § 102 as anticipated by U.S. Patent No. 5,716,559 to Larsen et al. (hereinafter, "Larsen").

Each of these rejections is separately and respectfully traversed.

Anticipation requires that the cited reference teach each and every element of the claim. Because van Reis does not teach every element of amended independent claims 2 and 3, the anticipation rejection of amended claims 2 and 3 cannot be maintained.

Amended claims 2 and 3 recite that the shear region is positioned along a first side of the porous medium and the plurality of permeate passages are positioned along a second, opposite side of the porous medium, and that each permeate passage fluidly communicates with the shear region through the porous medium. Van Reis fails to teach at least two of these limitations.

First, van Reis fails to teach a porous medium having a plurality of permeate passages positioned along one side of the porous medium, as claimed. Van Reis teaches a separation device having chambers 95a-95d, each of which is separated by a membrane 103, 113, or 123 (van Reis, Figures 4A, 4B). Each of the membranes 103, 113, and 123 in van Reis has only one permeate passage positioned along it. No membrane in van Reis has a plurality of permeate passages positioned along one side of the membrane, as claimed in amended claims 2 and 3. Because van Reis fails to teach a porous medium having a plurality of permeate passages positioned along a side of it, as claimed, van Reis cannot anticipate amended claims 2 and 3.

Secondly, van Reis fails to teach a shear region positioned on a first side of the porous medium and a plurality of permeate passages positioned along a second, opposite side of the porous medium, each permeate passage fluidly communicating with the shear region through the porous medium. Because van Reis fails to teach that each permeate passage fluidly communicates with the shear region through the porous medium, as claimed, the anticipation rejection of amended claims 2 and 3 over van Reis cannot be maintained.

With respect to the rejection of claim 2 over Larsen, Larsen also fails to teach at least one element of amended claim 2. Therefore, the anticipation rejection of amended claim 2 over Larsen also cannot be maintained.

Claim 2 recites that the separation device includes at least first and second permeate passages isolated from one another. As explained in the specification, the isolated permeate flow passages allow an independent permeate flow or pressure to be provided within each permeate flow passage, thereby incrementally controlling transmembrane pressure (TMP) along the entire length of the shear region (specification, page 13, lines 3-8). Larsen, in contrast, teaches a monolithic ceramic filter having channels separated by semipermeable interior walls (col. 4, line 5; col. 4, lines 34-36). Because the channel walls of the ceramic filter of Larsen are semipermeable, the channels are not isolated from one another, as claimed. It would, in fact, be impossible to maintain an independent permeate flow or pressure within each channel of a ceramic filter with semipermeable channels walls, as taught by Larsen. Semipermeable channel walls, as taught by Larsen, would also make it impossible to incrementally control TMP along the entire length of the shear region, in contrast to the claimed isolated permeate flow passages. Thus, Larsen fails to teach first and

second permeate passages that are isolated from each other, as claimed, and the anticipation rejection of amended claim 2 over Larsen cannot be maintained.

Amended independent claims 2 and 3 are allowable for the reasons set forth above. Because each of the dependent claims depends directly or ultimately from independent claim 2 or 3, each of the dependent claims is also patentable for at least the reasons set forth above.

For the reasons set forth above, reconsideration of the rejections is respectfully requested.

Respectfully submitted,

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